

**Memorable quotes from some of Professor H. Bolton Seed's
lectures at U.C. Berkeley (1976-82)**

“Good Engineers (with a name and good reputation) get their own way--that is why they are known as good engineers.”

“Always know what range the answer should be in before you begin.”

“An advantage is only an advantage IF it can be USED to advantage.”

“Don't allow yourself to practice OUTSIDE out of your field of professional competence. It is difficult to acquire sound professional judgment from others without the proper technical background. “

“You will get a better job by letting the experts do their job (without political or financial pressures interfering).”

“In regards to discovering geologic hazards: “It is interesting what they find when they know what they're looking for.”

“The word ‘fault’ conjures up all kinds of negative responses, but short faults do NOT produce great earthquakes, so seldom pose any great challenge.”

“Some people want to diffuse the waters so you must hire them to solve your problem --they don't want to make it easy.”

“Be enough right so that whatever you do works.”

“Get the facts first, the theory later, then you will have something to check the theory on.”

“Intelligent guessing is called estimating.”

“Assessments are guesses based on engineering judgment.”

“In engineering, methods that give a ‘good enough’ answer are good enough. Research, however, never ends. Research is a business, of which largely the students are the direct beneficiaries (money for research assistantships), that must never end. There is always more research to do.”

“The general thrust behind engineering problem solving is to simplify the problem enough to make it solvable. However, we must check to see if we have oversimplified the problem so much that we get other problems instead of the solution we desire.”

“The job of the engineer is to JUDGE whether the computer output is right or not- it can, and does, come out wrong. One should know the magnitude of the expected answer.”

“Striving to do better is the function of the University.”

“The term '*moderately*' means 'I don't know' in engineering.”

“One must be willing to compromise in order to get things accomplished.”

“You'll never get what you want, so try to produce a document that you can live with. Names (of prominent engineers) sell things.”

“If you're smart, you operate at better than minimum standards.”

“The only effective control is if someone exercises control.”

“What is done depends on what was done in the past (in engineering design).”

“Time doesn't make a poorly designed structure safe.” (referring to dams)

“A lot of 'experts' will say almost anything for \$500.”

“The difference between a good engineer and a bad engineer is that a good engineer makes good assumptions when he gets stuck on an 'insolvable' problem.”

“The primary difference between a scientist and an engineer is that when a scientist gets to a point where the problem cannot be solved mathematically due to an absence of known quantities, he will usually stop. An engineer will make the necessary assumptions to allow him to forge on to a solution -- he can't wait for someone else to solve the problem.”

“We keep repeating our mistakes--they've all been made already.”

“Don't work for poor clients; they can seldom afford to do things right.”

“The more tests that are run, the more chance there is for making errors.” This doesn't mean we don't advocate running tests, only that we exercise judgment in evaluating the results. The range of reported values may actually be more important than the absolute values themselves.”

“90% of the game is the standards you set. You tend to get what you demand. If you make exceptions-- those become your new standards.”

“The best may not be very good (in engineering analysis).”

“Most people don’t like to think. Most soils labs are run by technicians who are not trained fully in the ‘whys’ of soil mechanics, so they don’t make decisions different from accepted standards.”